



# QUERIES

IVALUA  
**buyer**



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# **PRESENTATION**

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## Objectives

The IVALUA BUYER Queries allows the creation of SQL queries in order to retrieve information from the application database, then generate exports of results, or extract them to different file formats. Extracted information can be formatted using templates.

A wizard makes creating these queries accessible to users who have no knowledge of SQL, simply by manipulating the GUI.

Advanced users have the possibility to write their own queries directly in SQL or MDX (querying the cube). Queries also allow to create Grid format data exports that can be used within the application using the Design mode.

## Becoming familiar with the interface

### Accessing the Queries

Select the *Analytics > Browse queries* menu. The *Queries* page is displayed.

### List of queries

The *Queries* page offers access to existing queries and allows you to create new queries.

The page is made up of the following parts:

1. The search criteria area.
2. The queries list (responding to the selected search criteria).
3. The *Create Query* button.

**Browse Queries**

Keywords:  Created by:  Category:  Status:  ☐ Show Sub Queries   **1**

**3**

Code	Category	Label	Order	Type	Status	Private	Created by	Extract	Preview
Accrual_Query		Accruals Report - NAR		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_sav	Action plan / Savings	Action plan / Savings	1	sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_qal_apqp_adhoc_activity_complete		Apqp Adhoc Activity Complete		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_qal_apqp_kickoff_checklist_data		Apqp Kickoff Checklist Data		sql	Approved	<input type="checkbox"/>	Admin Clarity		
pditem_ref_export_1		Catalog - Export v2		sql	Approved	<input type="checkbox"/>	Admin Clarity		
ctr_ord_item	Merge fields	Contract - Requisition lines/Order		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_que_ctr_contract_consumption		Contract Consumption		sql	Approved	<input type="checkbox"/>	Admin Clarity		
contract_coverage		Contract Coverage		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_cube_matrix		Cube configuration matrix		sql	Approved	<input type="checkbox"/>	Admin Clarity		
dashboard_contract_signature_count		Dashboard Contract: Signature Count		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_ctr_dashboard_contact		Dashboard: Contract Supplier Contact (std)		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_ctr_dashboard_team		Dashboard: Contract Team (std)		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_sup_dashboard_contact		Dashboard: Supplier Contact (std)		sql	Approved	<input type="checkbox"/>	Admin Clarity		





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## PRESENTATION

### Becoming familiar with the interface

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The query list gives the following information

Column	Description
	Delete the query (after confirmation)
	Open the query form
	Duplicate the query (copies the query properties to create a new one based on the duplicated content).
Code	Unique identifier code for the query
Category	Group to which the query is attached (the categories are used in order to classify queries)
Label	Query name
Order	Query display order number
Type	The query can be one of two types: <ul style="list-style-type: none"><li>▪ SQL</li><li>▪ MDX</li></ul>
Status	The request has one of two statuses <ul style="list-style-type: none"><li>▪ Validated</li><li>▪ Blocked</li></ul>
Private	The query is: <ul style="list-style-type: none"><li>▪ either private (only available to its creator)</li><li>▪ or available to all</li></ul>
Created by	Name of the user who created the query
Extract	Click to extract the result of the query to a file. When the query is running, the  button is displayed and allows to cancel query execution.
Preview	Click to preview the query result in a grid (a secondary window opens)

## Query page

The Query page allows manual or assisted creation of queries and the definition of publishing methods.

It is composed of 3 tabs: *Query*, *Publish* and *Query Manage*.

### Query tab

This tab contains the query.

The screenshot shows the Query page interface. On the left is a sidebar with a tree view of database elements. A red box labeled '1' highlights the tree view. At the top of the sidebar is a search bar. The main area is divided into two sections: 'Advanced parameters' and 'Script of the query (SQL or MDX)'. The 'Script of the query' section contains a SQL query. A red box labeled '2' highlights the query script. Below the script is a table of results. A red box labeled '3' highlights the table of results.

Login	Prenom	Nom	Code Profil	Profil
ade	a	de	admin	Administrator
ade	a	de	param	Configurator
ade	a	de	dev	Developer
adj	a	dj	admin	Administrator
adj	a	dj	param	Configurator
adj	a	dj	dev	Developer
ahs	a	hs	admin	Administrator
ahs	a	hs	param	Configurator
ahs	a	hs	dev	Developer
akd	a	kd	admin	Administrator
akd	a	kd	param	Configurator
akd	a	kd	dev	Developer
akg	a	kg	admin	Administrator
akg	a	kg	param	Configurator
akg	a	kg	dev	Developer

The page is organized as follows:

1. *Query element selection tree view*. Each node corresponds to a functional module that contains database tables. You can expand each node in the tree to access specific elements you wish to include to your query code (parameters, tables, key). You can use the search field at the top of the tree view to find a given element (matches are highlighted in yellow). The desired query element can be dragged and dropped to the position you want it to be inserted at in the code (*Script of the Query* text area).

The screenshot shows the Query page interface. On the left is a sidebar with a tree view of database elements. A red box labeled '1' highlights the tree view. At the top of the sidebar is a search bar. The main area is divided into two sections: 'Advanced parameters' and 'Script of the query (SQL or MDX)'. The 'Script of the query' section contains a SQL query. A red box labeled '2' highlights the query script. Below the script is a table of results. A red box labeled '3' highlights the table of results.

**Note:** The Search field retrieves modules, tables and columns. The displayed list is narrowed down according to the specified keywords.

## PRESENTATION

### Becoming familiar with the interface

2. *Script of the Query (SQL or MDX)* area. Allows you manually write the SQL code for a query and/or change the SQL code generated by the wizard. The *Advanced parameters* link above the query code field allows you to declare parameters used in the SQL query when using direct entry instead of the wizard (see *Declaring the parameters included in your SQL query*, page 23).
3. *Query result preview*. This area displays the result of the query when clicking the *Preview Result* button. You can therefore test your SQL or MDX code safely and edit it according to the obtained query results.

### Publish Tab

The screenshot displays the 'Publish Tab' interface. On the left is a dark sidebar with 'Query' and 'Query manage' options. The main area has a top bar with buttons: 'Save', 'Save & Close', 'Preview Result', 'View logs', 'Copy', and 'Run Query'. Below this are two panels. The 'General Information' panel (marked with a red circle 1) contains fields for 'Code' (Accrual Query), 'Title' (Accruals Report - NAR), 'Authorization' (a dropdown), 'Order' (a text field), 'Description' (Generalized Accrual Query), 'Category' (a dropdown), and 'Status' (Approved). The 'Runtime data' panel (marked with a red circle 2) contains fields for 'Output file name', 'Output format', 'Export Language', 'Contents', 'CSV separator', 'Text encoding' (utf-8 - Unicode (UTF-8)), 'Timeout', 'Transaction isolation mode' (No lock mode), 'Max rows', 'Carriage return type', and checkboxes for 'Header in extract', 'CSV/TXT double quote delimited', and 'Create a log'. There is also a 'Sub query' dropdown at the bottom.

1. The *general information* area groups together the characteristics that allow the identification of the query (code, title, description) and to access it (status, authorization).
2. The *runtime data* allows the redefinition of the default characteristics of the extracted results file, to program a periodic run of the query and to link subqueries.

## Query Manage tab

This tab gives you access to the Query Wizard.

The screenshot shows the 'Query Manage' tab interface. At the top, there's a header bar with a search icon, a search input field, and icons for save, save & close, run query, preview result, view logs, and copy. Below this is a sub-header 'Query : loginprofil - Profils per user'. The main area is divided into two sections: 'Wizard' and 'Tracking'.

The 'Wizard' section is further divided into three panels:

- Table:** A tree view showing 'Relation Login - Profile' with sub-items 'Login' and 'Profile'.
- Columns:** A search bar and a table of available columns. The table has columns 'Column', 'Technical name', and 'Order'. It lists 'ID Import Line' (imp\_line\_id, 99), 'Import ID' (imp\_id, 99), 'Login' (login\_name, 99), 'Profile' (profil\_code, 99), and 'Status' (status\_code, 99). There's a checkbox for 'Display multi lang columns' and a 'Keywords' input field.
- Selected Columns:** A table showing the selected columns and their configurations. It has columns 'Table', 'Column', 'Sort', 'Par', 'RP', and 'Filter'. The selected columns are 'Contact (name)', 'First Name (firstname)', 'Last Name (lastname)', 'Profile code (code)', and 'Label'. Each column has a sort order (e.g., #1, #2, #3) and a sort type (e.g., ASC). There are checkboxes for 'Par' and 'RP'.

At the bottom of the 'Wizard' section, there's a '5 Result(s)' summary and an 'Object Type Perimeter' dropdown menu.

The 'Tracking' section at the bottom shows a log of changes:

- Created by Admin Clarity on 9/19/2010 2:37:11 AM
- Modified by on 11/19/2011 6:01:23 PM

The *Wizard* area is reserved for the assisted construction of the query (no knowledge of SQL required).

The query code is automatically generated according to the tables and columns that you select, and according to the options you apply for each selected column in the wizard. The query displayed on the *Query* tab in the *Script of the query (SQL or MDX)* field is the result of the selections and configurations made on the *Query Manage* tab.

The *Tracking* area provides an account of query creation and changes over time (timestamps and name of users who have performed changes on the query).

## Action Bar

The Action Bar contains buttons that allow you to save, to preview and to run the query.

Button	Description
Save	Saves your changes
Save & Close	Saves your changes and closes the query (return to the <i>Browse Queries</i> page)
Preview result	Displays the raw result of the query in a grid (a secondary window opens).
View logs	Gives you access to the query's runtime log (runtime data is logged if the option <i>Enable logging</i> is selected prior to running the query)
Copy	Duplicates the active query
Run query	Runs the query and extracts the results of the query into a file



# CREATING AND MODIFYING QUERIES

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## Creating a query using the wizard

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### Opening the query creation form

Access the *Analytics > Browse Queries* page, then click the **Create Query** button.

### Assigning a name and a code to the query

We recommend that you save your query from the start, which allows you to use the preview and execution features in parallel with the creation. You can therefore ensure that the query produces the expected results.

1. Access the *Publish* tab.
2. Fill the *Code* and *Name* fields.
3. Click the **Save** button.



## Organization of the Wizard

Access the *Query Manage* tab. The Wizard is made up of 3 parts:

The screenshot shows the 'Wizard' interface with three numbered sections:

- 1 Table:** A tree view showing a hierarchy of tables. The 'Login' table is selected under 'Relation Login - Profile'.
- 2 Columns:** A search box and a table of columns for the selected table. The table has columns: Column, Technical name, and Order. Columns listed include 'Is a template', 'Template', 'User token', 'Last session UID', 'Current Session UID', 'login\_terms\_accepted\_date', 'login\_gdpr\_accepted', and 'login\_gdpr\_accepted\_date'.
- 3 Selected Columns:** A table showing the selected columns and their configuration. The table has columns: Table, Column, Sort, and Par. Selected columns include 'Contact (name)', 'First Name (firstname)', 'Last Name (lastname)', 'Profile code (code)', and 'Label'.

**1** The **Table** area allows the selection of the main table.

Once the selection has been made, this area shows the selected table, and the tree diagram of the tables linked to the main table (identified by the icon ) and the tables linked by a foreign key to a column of the main table (identified by .

**Note:** To be listed in the *Main table* selector, a table must have its *Main table* (tdesc\_is\_main) checkbox enabled in table *BAS – Description of the tables of the data model* (t\_bas\_tab\_desc).

The displayed tables account for the connected user's access permissions. To view a table, the user must be assigned the authorization set in the *Authorization* column (auth\_code) of the *BAS – Description of the tables of the data model* (t\_bas\_tab\_desc) table.

When hovering a table name, its code is displayed as a tooltip.

**2** The **Columns** area displays the columns (or fields) in the order specified in the *Order* field of the selected table. The selected table could be the main table or a linked table. Checkboxes allow you to select the columns that will be used in the query. A Search field allows you to quickly locate the desired columns.

**Note:** By default, the display order of columns is determined by the order number (cdesc\_order) assigned to columns in the *BAS – Description of table columns* (t\_bas\_col\_desc) table. However, you can sort columns either by column name, technical name, or by order number by clicking the corresponding column header (click a column header once to sort on that column; click the same column header again to reverse the order).


Columns whose *Authorize the queries* attribute (cdesc\_allow\_query) is disabled in the *BAS – Description of table columns* table (t\_bas\_col\_desc) are not listed, nor those of the secondary tables resulting from a foreign key.


When hovering a column name, its code and the code of the table it belongs to are displayed in a tooltip.

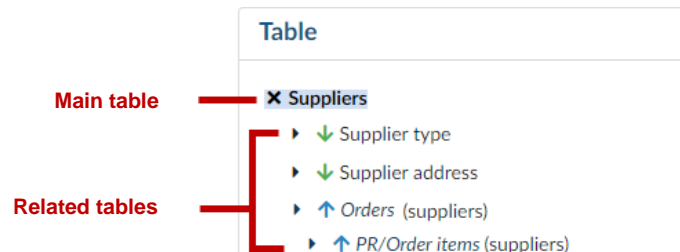
**3** The **Selected Columns** area shows the list of columns selected from the *Columns* area. This area can be used to apply different functions to each column that will refine the query (parameter, filter) or modify the query output display (sorting, text columns).

**Note:** When hovering a column label, the technical name of the table it belongs to and the column technical name are displayed in a tooltip.



## Selecting the main table

1. Click the *Main table* selector button  in the *Table* area of the Wizard.
2. The *Tables* window is displayed. Select the table that you would like to use by selecting the corresponding checkbox.

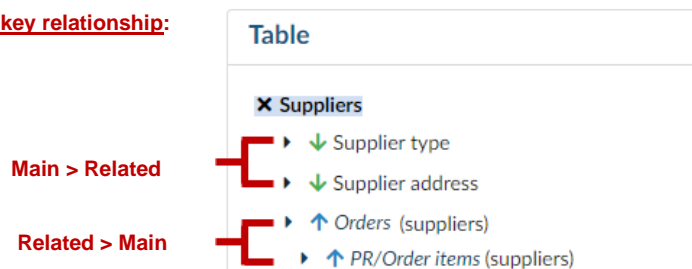
Once done, this area will show the main table (on top) and all related tables (under the main table). The delete icon  allows you to remove the main table if you want to change it (cancel the previously made main table selection).



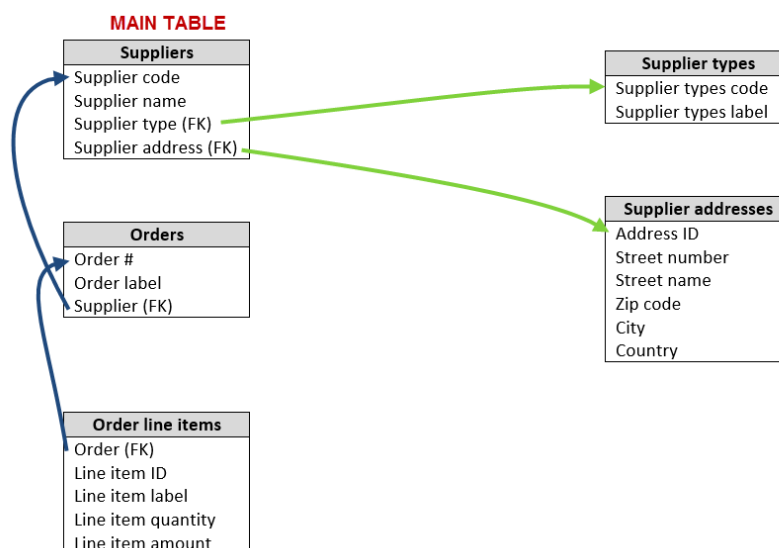
Related tables are tables that are linked to the main table by a foreign key (FK) relationship.

- If the foreign key is in the main table and points to the related table, the related table is associated with the icon  (green downward pointing arrow)
- If the foreign key is in the related table and points to the main table, the related table is associated with the icon  (blue upward pointing arrow)

### Foreign key relationship:



Here is a diagram of the relationships existing between the tables listed above:



Why is this important?

When building a query, if you want to extract a label, make sure you do not select a foreign key, because you would obtain a code instead of a label. Let's take our example above: If you wish to extract the supplier type label, you must select the *Type label* column in the related *Supplier type* table, and not the *Supplier type* foreign key in the main *Supplier* table.

## CREATING AND MODIFYING QUERIES

### Creating a query using the wizard

#### Selecting columns

1. In the tree chart for the Main table and its dependents, select the table that contains the data that interests you.

The list of the columns for the selected table is displayed in the *Columns* area.

2. Select the check box of the columns that you wish to use for your query. If you have a long list of available columns, you might find it handy to use the *Search* field to quickly locate the desired ones (type the first letters, then hit **Enter**).

When you select a column, it is added to the *Selected Columns* area.

**Columns**

Search

☐ Display multi lang columns

Keywords

Column	Technical name	Order
<input checked="" type="checkbox"/> Code	fam_code	99
<input type="checkbox"/> Commodity (Level 1)	dom_id	99
<input type="checkbox"/> Commodity ID	comm_id	15
<input type="checkbox"/> ID	fam_id	99
<input type="checkbox"/> ID Import line	impline_id	99
<input type="checkbox"/> Import ID	imp_id	99
<input checked="" type="checkbox"/> Label	fam_label_\$\$	99
<input type="checkbox"/> Status	status_code	99
<input type="checkbox"/> Type	famtype_id	99

9 Result(s)

**Selected Columns**

Table	Column	Sort	Par	RP	Filter	Ex	NE	E	H	Col. Label
Commodities (Level 2)	Code (code)		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Commodities (Level 2)	Label		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en

2 Result(s)

Object Type Perimeter

Check user perimeter in object:

#### Filtering the query results

##### Applying filters before runtime

The *Filter* area allows you to enter a specific value for a given column and filter the results to this value.

In the example below, the filter on the "del" value of the *Status* column will list all the *Deleted (del)* items.

**Selected Columns**

Table	Column	Sort	Par	RP	Filter	Ex	NE	E	H	Col. Label
Suppliers	Supplier (id)		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Suppliers	Legal Name		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Items	PR/Order items Label		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Items	Status (code)		<input type="checkbox"/>	<input type="checkbox"/>	del	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en

4 Result(s)

The *Exclusion* check box (Ex) inverts the effect of the *Filter* field, excluding the results of the input value (equivalent of the SQL instruction: "Not IN" or "<>").

In the example below, the filter on the "del" value of the *Status* column, associated with the Exclusion box (Ex), will list all the items that don't have the *Deleted* status (del).

Table	Column	Sort	Par	RP ①	Filter	Ex ①	NE ①	E ①	H ①	Col. Label ①
Suppliers	Supplier (id)	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> en
Suppliers	Legal Name	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> en
Items	PR/Order items Label	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> en
Items	Status (code)	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	del <input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> en

4 Result(s)

The *Empty* (E) and *Non empty* (NE) checkboxes generate respectively "Null" and "Not null" filters. The *Hide when extract* (H) checkbox allows to hide the columns used to filter data in the final query extract (and in query output previews) if including specific column information is not relevant in the query output or for confidentiality purposes.

**Note:** If using a query template and the *Hide when extract* (H) option, the template configuration overrides the options selected in the Wizard. Therefore, columns that you wish to hide may still appear in the query extract (depending on the template configuration).

The form of the filter depends on the column in question.

If the column is linked to a parent table by a foreign key, 2 cases can arise:

- Either the table has a selector by default (defined in the Table management of the application) – in this case, it is this selector that appears in the *Filter* area.
- Or the table does not have a default selector and the filter takes the form of an auto-completion entry zone, associated with the *Selector* button

If the column is not bound by a foreign key, the filter adapts to the data format of the column in question and takes one of the following forms:

Column data format	Form of filter
<b>Text</b> Column linked to a parent table by a foreign key. <i>Contracts</i> <i>Contracts #</i>	Generic auto-completion Selector 
<b>Text</b> No foreign key <i>Suppliers</i> <i>Legal Name</i>	Classic text zone 
<b>Numerical</b> <i>Contracts</i> <i>Amount</i>	Dual entry zone allows the definition of a range of numbers. 
<b>Date</b> <i>Suppliers</i> <i>Creation date</i>	Dual entry zone allows the definition of a range of dates 
<b>Boolean</b> <i>Suppliers</i> <i>Non-profit (association)</i>	Drop-down menu proposing choices: "Empty / "Yes / No" 

### Applying filters at runtime

The *Par* function (Parameter) allows you to display one or more filters whenever a user runs the query. The results are then filtered according to the entered filter values.

Give a label to the columns that you set as parameters so that the user who runs the query will know the purpose assigned to each filter (see *Renaming the headers of the columns*, page 21 for details).

Table	Column	Sort	Par	RP ①	Filter	Ex ①	NE ①	E ①	H ①	Col. Label ①
Suppliers	Supplier (id)	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Supplier en
Suppliers	Legal Name	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Items	PR/Order items Label	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en
Items	Status (code)	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	del	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	en

In the example above, when running the query, the supplier selector is displayed, allowing you to select the supplier whose data you wish to extract:

### Run query



Close | Extract Extract PDF

#### Parameters

Supplier

You can make this parameter mandatory by selecting the *RP* checkbox (Required Parameter). Thus:

- When *RP* is disabled, users who run the query may select a filter value; however, they are not required to: they will still be able to extract the unfiltered data.
- When *RP* is enabled, a filter value must be selected in order to be able to extract the data.

**Note:** When using a Date Range type of filter (from... to...) that is generated through the wizard, the application will automatically perform a consistency check that prevents the selection of an end date that is before the start date of the range.

### Restricting the display of results in terms of User perimeter

It is possible to restrict the display of query results based on the perimeter assigned to the user by specifying the object the restriction should be applied on.

To do this, use the *Check user perimeter on object* drop down list in the *Query Manage* tab, below the selected columns.

**Note:** The access to the dropdown list is governed by the *QUE – Access to Contact Perimeter* (auth\_que\_contact\_perimeter\_access) authorization. It will not be visible to users who do not have this authorization, with the option "limited to his perimeter" applied to the main table.

## Organizing the display of results

### Reordering columns

In the *Selected column* area, each row represents a column that you have selected in the main table or in related tables.

The order of the rows determines the order of the column display in the report. The *Hand* icon allows you to reorder the columns by dragging and dropping.

### Sorting the results

The *Sort* column allows you to organize the query results (same as the "ORDER BY" SQL instruction).

The 1<sup>st</sup> dropdown list allows you to specify the priority order in which each column is taken into account as a sorting criterion for the data.

The 2<sup>nd</sup> dropdown list (visible only when an order number has been selected) allows you to specify the sorting direction, that is, whether the results should be sorted in ascending (ASC) or descending (DESC) order.

In the following example, the results are first sorted by the supplier name, then by the item's label, in ascending order (i.e. by alphabetical order).

Table	Column	Sort
Suppliers	Supplier (id)	
Suppliers	Legal Name	#1  ASC
Items	PR/Order items Label	#2  ASC

### Renaming the headers of the columns

By default, the columns in the query result correspond to the name of the columns in the database. The *Col. Label* Column (Column name) allows you to rename the columns to improve the presentation of the results.

Note that the labels entered in the *Col. Label* column will serve as aliases for the columns used as merge fields in formatted data extractions that use an Excel template (merge fields being inserted in the following form: %%query.alias, where "query" is the query code and "alias" is the field's alias in the SELECT statement of the SQL query).

The following characters are not allowed: & ' ( ) : , . + { [ ] } ¢

Selected Columns

Table	Column	Sort	Par	RP ①	Filter	Ex ①	NE ①	E ①	H ①	Col. Label ①
Suppliers	Supplier (id)		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Supplier en
Suppliers	Legal Name		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	en
Items	PR/Order items Label		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Item Label en
Items	Status (code)		<input type="checkbox"/>	<input type="checkbox"/>	del	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Item Code en

4 Result(s)

Object Type Perimeter

Check user perimeter in object :

## Creating a query by copying an existing one


---

### Duplicating an existing query

#### Access

Access to query duplication requires the authorization to edit queries (QUE - Modify a query / auth\_que\_query\_manage).

You may duplicate a query either from the list of queries, or from the detailed sheet of the query you want to duplicate.

- From the list of queries, click the *Duplicate* icon  of the query to duplicate.
- From the query you want to duplicate, click the **Copy** button in the action bar.

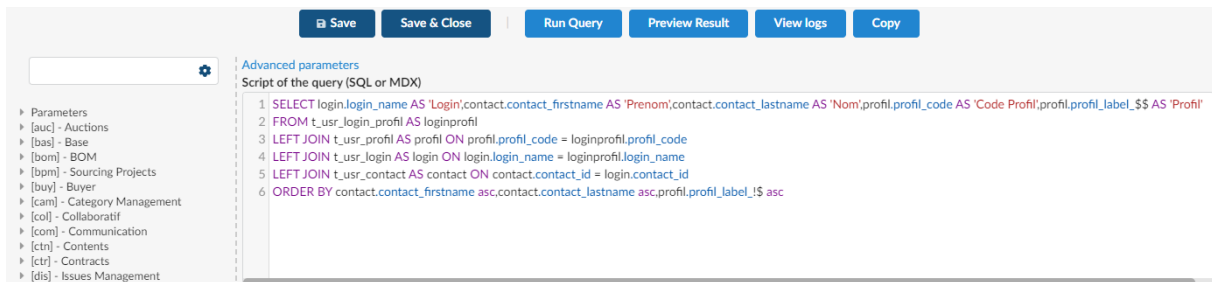
After your confirmation, a new query with the same characteristics as the copied query will display.

Its code is set by default to: *[code of copied query]\_1* (you can change this as needed).

At this stage, the new query is not saved yet; you need to give it a title and hit **Save** if you want to keep it.

## Writing your own queries in SQL or MDX

### Entering or modifying the query's SQL code



The query generated by the system is displayed in the *Script of the query (SQL or MDX)* field of the *Query* tab.

Proficient SQL users (who have the appropriate authorization) can edit the SQL code manually or write the entire query in this area without resorting to the wizard.

The query can include parameters, which need to be declared in the *Advanced parameters* window (see page 23), with the exception of a predefined set of parameters that do not require prior declaration (see page 26).

### Interactions between a modified query and the wizard

From the moment this zone is modified, the query is set to manual mode and is disassociated from the wizard. In other words: the changes made in the *wizard* are no longer displayed in the *Script of the Query* field.

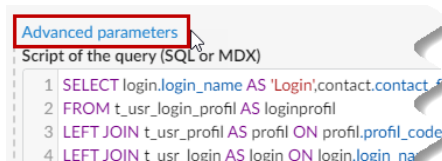
The **Build Query from Wizard** button (displayed in the action bar after the query code has been manually edited and saved) allows you to switch back to assisted Creation mode, which manually writes over the modified query that was generated by the wizard (after confirmation).

### Declaring the parameters included in your SQL query

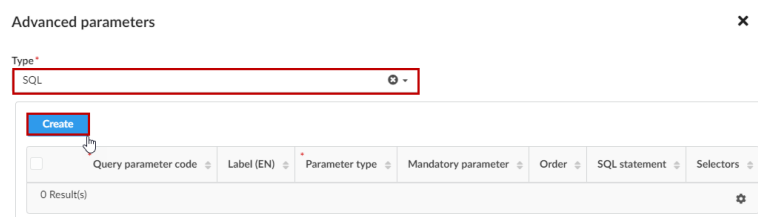
The *Advanced parameters* window allows you to declare the parameters that you are using in your SQL query in Manual mode.

To add a parameter:

1. Click the *Advanced Parameters* link located above the *Script of the query (SQL or MDX)* text field on the *Query* tab.



2. Select the *SQL* type (this enables access to the table tree view, to the SQL parameters, and set the *Script of the query* field to *SQL* mode), click the **Create** button.



The *Query parameter* window is displayed.

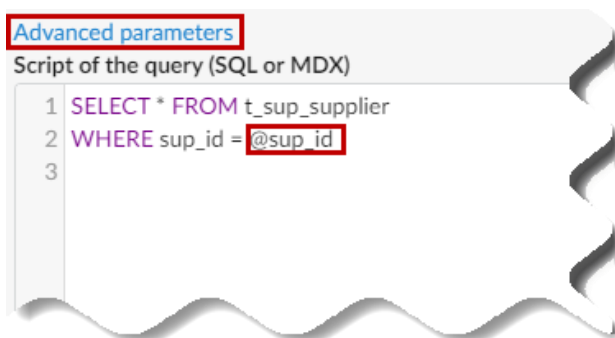
3. Fill in the fields, referring to the table below:

Field	Description
Query parameter code	Code that identifies your query parameter uniquely.
Parameter Type	<p>Appearance that the filter (parameter) will take at query execution time in order to allow the user to select a value</p> <p>Available filter types are: Selector (single or multiple), Text (contains or exact search), Yes/No, Date, Decimal, and Integer.</p> <p>When creating a Date Range parameter type using <i>Advanced Parameters</i>, you must then use the Design Mode to ensure the consistency of the selected dates; for instance:</p> <p>Let's say we have a Start Date field (<i>date_from</i>) and we want to make sure the date that is selected is before that of the End Date field (<i>date_to</i>).</p> <p>To implement this kind of check, you should access the "<i>date_from</i>" field in Design Mode and set the "<i>Maximum value</i>" as: "&lt;=#<i>date_to</i>"</p>
Label	Label of the filter as displayed at execution time (should indicate to users what they are expected to select/enter)
Mandatory parameter	<p>Select this checkbox to specify that a value is mandatory. If left unselected, specifying a value is optional for this filter.</p> <p>At runtime, mandatory parameters are signaled with a red asterisk.</p>
Order	When there are multiple parameters, the order number determines the display order of parameters
Selectors	The selector contains the values of the filter, among which the users who run the query will be able to choose the value they want to apply
SQL statement	<p>This field allows to specify how the parameter should be used in the query.</p> <p>e.g.: If specifying <i>ctr.ctr_id</i> = @<i>ctr_id</i> the statement will be added to the WHERE clause of the query.</p>

4. Click the **Save & Close** button.

Here is an example of a query that will extract the data of the selected supplier, with:

- The SQL code and the declaration of the parameter included in the query:



- The declared SQL parameter used in the query:

Advanced parameters ✕

Type\*  
SQL

0 Selected Create

<input type="checkbox"/>	Query parameter code	Label (EN)	Parameter type	Mandatory parameter	Order	SQL statement	Selectors
<input type="checkbox"/>	@sup_id	Supplier	Selector (single)	<input checked="" type="checkbox"/>			Supplier

1 Result(s)

- The detail of parameter declaration:

Query parameter 🖨️ 📄 ✕

Close | Delete Generate Script New

**Query parameter**

Query parameter code\*  
@sup\_id

Parameter type\*  
Selector (single)

Label  
Supplier en

☒ Mandatory parameter

Order

Selectors  
Supplier

SQL statement

- And the display of the parameter upon execution:

Run query 🖨️ 📄 ✕

Close | Extract

**Parameters**

Supplier\*

Where needed, you can assign a default value to a parameter using Design Mode.

Likewise, when the query uses multiple parameters, you can use the Design Mode to arrange filters as you wish.

## Parameters available without prior declaration

The following SQL parameters are always available within your queries and do not require prior declaration:

- @login\_name : login ID of current user
- @base\_url : WwwRoot property
- @lang : language of current user
- @url\_prefix\_intranet : prefix of intranet URLs
- @url\_prefix\_extranet : prefix of extranet URLs
- @timestamp

## MDX Queries

The *Script of the query (SQL or MDX)* field of the *Query* tab allows you to receive the MDX code (to directly query the cube).

To create an MDX query, you must select the *MDX* type before writing the query code.

1. On the *Query* tab, click the *Advanced parameters* link located above the *Script of the query (SQL or MDX)* field.
2. Select the MDX type.

## Advanced parameters

3. Close the *Advanced Parameters* window.

This will hide the *Wizard* part that cannot be used to generate MDX code.

Advanced parameters

Script of the query (SQL or MDX)

```

1 WITH
2 MEMBER [Measures].[Measure for ABC] AS [Measures].[m_invoice_item_amount]
3
4 SET [Set for ABC] AS NonEmpty( [d_sup].[h_sup].[l_sit].MEMBERS, [Measures].[Measure for ABC] )
5 SET [A] AS TopPercent( [Set for ABC], 30, [Measures].[Measure for ABC] )
6 SET [B] AS TopPercent( [Set for ABC], 80, [Measures].[Measure for ABC])-[A]
7 SET [C] AS [Set for ABC] - [A] - [B]
8
9 MEMBER [Measures].[ABC Group] AS
10 iif( isEmpty( [Measures].[Measure for ABC] ), null,
11     iif( Intersect( [A], [d_sup].[h_sup].CurrentMember.Count > 0;A', iif( Intersect( [B],
12         [d_sup].[h_sup].CurrentMember.Count > 0;B'C' ) ) )
13
14 SELECT {
15     [Measures].[Measure for ABC],[Measures].[ABC Group] } ON 0,
16     NON EMPTY (ORDER([d_sup].[h_sup].[l_sit].MEMBERS, [Measures].[Measure for ABC], BDESC)) ON 1
17 FROM [c_main]
18 WHERE
19 ( [d_perio].[l_y].[l_y].&[2011])
  
```

## Defining the query publication parameters

### Publish Tab – Description of fields

The table below describes the fields of the *Publish* tab of the query.

Field	Description
<b>General Information</b>	
Code	Unique identifier code for the query By default, this field is re-entered with the alias of the main selected table.
Title	Query name or label
Category	Group to which the query is attached (the categories are used in order to classify queries)
Authorization	Access authorization to restrict the use of the query by authorized profiles. Note the ability to make a query private or accessible to everyone.
Query Type (from version 8.168)	The query can be of two types. This allows segregating queries in order to restrict their use, therefore ensuring data integrity and confidentiality (e.g.: data shown to external or internal users, ensuring that no restricted data can be recovered by unauthorized users): <ul style="list-style-type: none"> <li>Internal: only internal users can execute the query</li> <li>External: enforces the advanced query security validation process at creation time before allowing the query into production. External users (e.g.: supplier contacts) can run external queries only. Internal users can run external queries.</li> </ul>
Order	Query display order number
Description	Descriptive text indicating the (for example) purpose of the query
Status	The query has one of two statuses

## CREATING AND MODIFYING QUERIES

### Defining the query publication parameters

Field	Description
	<ul style="list-style-type: none"><li>▪ Approved: the query can be used</li><li>▪ Blocked: the query cannot be used</li></ul>
<b>Runtime data</b>	
Output file name	By default, the output file is named: "Query (n)", where <i>n</i> is an auto-incremented number. Here you can specify the file name to use instead of the default name.
Output format	<p>The output format can be selected from the list (CSV, XLS, XLSX, XLSM, DOC, DOCX, TXT with or without column headers, or XML). The output format is also overridden if selecting a template (<i>Contents</i> field) that uses a different file format.</p> <p>By default, the data is extracted in an MS Excel file.</p>
Contents	The output file can be based on a specific template that determines the content of the final extract as well as the file format (any eventual selection in the <i>Output format</i> field is overridden by the template).
Display template selection	<p>When a template (content) type is selected but there are multiple template files for the selected type, the system will automatically select the first template it finds in the language that matches the selected output language (see below) or the connected user's language.</p> <p>When enabled, the option <i>Show template choice</i> will force the display of a selector prompting users to choose the template they want to use each they run the query.</p>
CSV separator	By default, the character used as column separator in CSV files or plain text is the semicolon (;). This field allows you to force the use of another separator.
Text encoding	Encodage de sortie à utiliser pour les formats CSV et TXT
Use UTF-8 BOM identifier	This is enabled by default and applies when the selected text encoding is Unicode UTF-8. Disabling this checkbox allows you to discard the otherwise included BOM identifier from the generated file.
Timeout	<p>This allows you to modify the maximum execution time of the query.</p> <p>Access to this drop-down list is controlled by the authorization <i>QUE – Modify the query timeout</i> (auth_que_query_timeout).</p> <p>Caution, the value you set for this parameter is sensitive: setting the value too high can render the timeout mechanism pointless; however, this mechanism serves the purpose of interrupting queries whose execution time is too long (which can freeze the application).</p>
Transaction isolation mode	<p>Specifies the lock type and version control behavior for the Transact-SQL instructions lines that are sent during a connection to SQL Server</p> <p>The following modes are available:</p> <ul style="list-style-type: none"><li>▪ <b>No lock mode:</b> (default) same as SQL Server's "read uncommitted" mode. One transaction may see not-yet-committed changes made by other transactions (no lock, partial data integrity). This is the most efficient mode (recommended).</li><li>▪ <b>Snapshot Mode:</b> Same as SQL Server's "snapshot" mode. Changes made by other transactions after the active transaction started are not visible to said transaction. The transaction appears to operate on a personal snapshot of the database, taken at the start of the transaction (no lock, data integrity maintained). Medium performance. This mode requires a specific configuration of the database.</li><li>▪ <b>Locking mode:</b> Same as SQL Server's "read committed" mode. One transaction may not see not-yet-committed changes made by other transactions, which prevents dirty reads (update lock full data integrity). This is the least efficient mode (not recommended for large queries).</li></ul>
Max rows	This allows you to specify the maximum number of rows that may be returned by the query.

<b>Field</b>	<b>Description</b>
	<p>Default value = 65 000, configurable</p> <p>Access authorization: <i>QUE-Modify query max rows</i>  (auth_que_query_max_rows)</p>
Header in extract	Includes column headers in query result extracts.
CSV/TXT double quote delimited	If this option is selected, the values are delimited by double quotes in plain text (TXT) files and in CSV files. In the case of CSV files, the specified separator still delimits each field, and the value within each field is between double quotes.
Create a log	Enables the saving of the query execution log in the journal. See <i>Viewing the logs</i> , page 34.
Export language	By default, the results are extracted and presented in the language of the logged-in user ( <i>user_language</i> ). You can force the use of a particular language by selecting from the list.
Sub-query	<p>Allows you to select one or more sub-queries, which will be run with the main query. The main query and its sub-queries are linked by joins.</p> <p>Joins between the main query and subqueries allow you to generate dynamic lists in MS Word, in workflow notifications or contract clauses (in the form of enumerations, numbered or bulleted lists, or tables). For instance, in a notification triggered by the invoice workflow, you could run a query on the Invoice table to pull information through merge fields (main query); If you link this main query to a sub-query on the Invoice line table, you would now be able to display dynamically the list of the invoice's lines.</p> <p>When there is a join between a query and a subquery, the data from the subquery is automatically filtered based on the main query (similar to the results that an SQL INNER JOIN would produce).</p> <p>For further information on:</p> <ul style="list-style-type: none"> <li>▪ How to link a sub-query to the main query, see p.31</li> <li>▪ How to use queries and sub-queries to insert merge fields and dynamic lists in a notification, please refer to the Administrator manual (Notifications and broadcasts)</li> </ul>

## Defining the characteristics of the output file

By default, the query results are retrieved in the language of the logged-in user, in a file in MS Excel format named "*Query* (auto-incremented number)."

### File name

You can modify the output file name by entering the name of the file to be used in the *Output file name* field.

It is possible to append the file name with a timestamp and/or a GUID.

Format option	Syntax (Caution: case sensitive!)												
GUID	[guid]												
DATE	<p>[date(date format)]</p> <p>The date format is fully customizable using the custom date and time format specifiers from .NET Framework. Examples:</p> <table> <tr> <td>[date(yyyy/MM/dd)]</td><td>2015_01_28</td></tr> <tr> <td>[date(dd/MM/yyyy)]</td><td>28_01_2015</td></tr> <tr> <td>[date(MM/dd/yyyy)]</td><td>01-28-2015</td></tr> <tr> <td>[date(yyyy/MM/d hh:mm:ss tt)]</td><td>2015_01_28_03_55_26_PM</td></tr> <tr> <td>[date(yyyy/MM/d HH:mm:ss)]</td><td>2015_01_28_15_55_26</td></tr> <tr> <td>[date(yyyyMMd HHmmss)]</td><td>20150128_155526</td></tr> </table> <p>To see more options and obtain more information on custom date and time format specifiers:</p> <p><a href="https://docs.microsoft.com/en-us/dotnet/standard/base-types/custom-date-and-time-format-strings">https://docs.microsoft.com/en-us/dotnet/standard/base-types/custom-date-and-time-format-strings</a></p>	[date(yyyy/MM/dd)]	2015_01_28	[date(dd/MM/yyyy)]	28_01_2015	[date(MM/dd/yyyy)]	01-28-2015	[date(yyyy/MM/d hh:mm:ss tt)]	2015_01_28_03_55_26_PM	[date(yyyy/MM/d HH:mm:ss)]	2015_01_28_15_55_26	[date(yyyyMMd HHmmss)]	20150128_155526
[date(yyyy/MM/dd)]	2015_01_28												
[date(dd/MM/yyyy)]	28_01_2015												
[date(MM/dd/yyyy)]	01-28-2015												
[date(yyyy/MM/d hh:mm:ss tt)]	2015_01_28_03_55_26_PM												
[date(yyyy/MM/d HH:mm:ss)]	2015_01_28_15_55_26												
[date(yyyyMMd HHmmss)]	20150128_155526												

### File format

You can choose the output file format from the *Output format* list, such as MS Excel (csv, xls, xlsx, xslm), Plain text (txt), MS Word (doc, docx) or XML.

The query results can also be formatted by applying a template.

To do this, use *Contents* field to select a template, or click *See All* to display the full list in a new window; from the *Template Selector* window select the template by selecting the corresponding checkbox, then close the window.

### Language

By default, the results are extracted in the language of the logged-in user (*user\_language*), but it is possible to override the output language used for the extracted data by selecting a different one from the *Export language* drop-down list.

### Linking a sub-query to a query

The sub-query must be created beforehand. It must include a column that will allow you to create a join with the main query.

1. Access the *Publish* tab of the main query.
2. Use the *Sub-query* field to select the desired sub-query (click See All to display the full list in a new window, then select the corresponding checkboxes and close the window), then click the **Save** button.

Label column	Code	Alias	Join columns sub query ⓘ	Join columns main query ⓘ
✕ Invoice code	invoice			

3. Create the join between the main query and the sub-query.

Label column	Code	Alias	Join columns sub query ⓘ	Join columns main query ⓘ
✕ Invoice code	invoice	item	Code	Code

To do so:

- In the *Alias* column, declare the alias of the sub-query's main table (as defined in the *t\_bas\_tab\_desc* table you can access via the *Admin > Browse Data* menu)
- In the columns *Join columns sub-query* and *Join columns main query*, declare the alias of join columns, separated by “;” if more than one (column aliases are defined in the *t\_bas\_col\_desc* table or on the *Query Manage* tab, *Selected columns* area, *Col. Label* column, see screenshot below)

Selected Columns											
Table	Column	Sort	Par	RP ⓘ	Filter	Ex ⓘ	NE ⓘ	E ⓘ	H ⓘ	Col. Label ⓘ	
Invoices	Invoice code		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Code	en
1 Result(s)											

4. Click the **Save** button.

## Preview and execution

### Prerequisite

To be able to display or extract the results of a query, you must save it first. To do this, you must at least specify its code and title.

### Previewing the raw result of the query

The preview function allows you to view the query result in the query editor (*Query* tab), below the *Script of the query (SQL or MDX)* field. This provides a direct on-screen preview and allows you to edit the query code if necessary.

To preview the result of a query, click the **Preview Result** button in the query record (Action bar).

Save
Save & Close
Preview Result
View logs
Copy
Run Query

Advanced parameters

Script of the query (SQL or MDX)

```

1 SELECT sup.sup_id AS 'Supplier',
2 sup.sup_name,$$ AS 'Company Name',
3 sup.sup_code AS 'External Code',
4 sup.sup_siren AS 'Gov't I.D.# EIN SIREN',
5 sup.sup_tva_ic AS 'Tax ID Number',
6 sup.sup_intragroup AS 'Intra-group',
7 sup.country_code AS 'Country',
8 COALESCE(sup.status.status_label,$$, sup.status_code) AS 'Status',
9 sup.styp_code AS 'Type',
10 sup.sup_website AS 'Web Site',
11 sup.sup_phone AS 'Phone #',
12 sup.sup_fax AS 'FAX number',

```

Supplier	Company Name	External Code	Gov't I.D.# EIN SIREN	Tax ID Number	Intra-group	Country	Status	Type	Web Site	Phone #	FAX number
1	3M	C001452	495573756		<input type="checkbox"/>		Active Supplier	sup			
2	ACER AMERICA CORPORATION	C001455	215911969		<input type="checkbox"/>		Active Supplier	man			
3	AEG	C001456	465626191		<input type="checkbox"/>		Active Supplier	man	www.aeg.com		
4	AM Design	C001462	447661257		<input type="checkbox"/>		Active Supplier	sup			
5	AMAZON.COM, INC.	C001463	362338722		<input type="checkbox"/>		Active Supplier	dis	http://www.amazon.com		
6	American Mobile	C001464	299049735	6475635	<input type="checkbox"/>		Active Supplier	dis			
7	Anonima Petroli Italiana	C001465	157413224		<input type="checkbox"/>		Active Supplier	sup	www.supa.com		
8	Ansell	C001466	389283720		<input type="checkbox"/>		Active Supplier	man			
9	Apple	C001467	265201848		<input type="checkbox"/>		Active Supplier	man			
10	ARAI	C001469	295824916		<input type="checkbox"/>		Active Supplier	man	http://www.arai.com		

The preview takes the sorting order into account, as well as column renaming and the filters before execution, however, during query execution, filters (defined via the function Parameter) are ignored.

## Showing the results as a search page

In the list of queries, click the *Preview*  icon to open the preview results in a pop-up window.

In this view of the results, the query name is used as the page title and filters at runtime are proposed in the search filters area at the top of the page.

Supplier extraction ❏ ✕





Close | Exec. query

Q Search
Reset

Supplier	Company Name	External Code	Gov't I.D.# EIN SIREN	Tax ID Number	Intra-group	Country	Status	Type	Web S
1	3M	C001452	495573756		<input type="checkbox"/>		Active Supplier	sup	
2	ACER AMERICA CORPORATION	C001455	215911969		<input type="checkbox"/>		Active Supplier	man	
3	AEG	C001456	465626191		<input type="checkbox"/>		Active Supplier	man	www.a
4	AM Design	C001462	447661257		<input type="checkbox"/>		Active Supplier	sup	
5	AMAZON.COM, INC.	C001463	362338722		<input type="checkbox"/>		Active Supplier	dis	http://v
6	American Mobile	C001464	299049735	6475635	<input type="checkbox"/>		Active Supplier	dis	
7	Anonima Petroli Italiana	C001465	157413224		<input type="checkbox"/>		Active Supplier	sup	www.s
8	Ansell	C001466	389283720		<input type="checkbox"/>		Active Supplier	man	
9	Apple	C001467	265201848		<input type="checkbox"/>		Active Supplier	man	
10	ARAI	C001469	295824916		<input type="checkbox"/>		Active Supplier	man	http://v
11	ART-DISPLAY	C001470	509308763	FR509308763	<input type="checkbox"/>		Active Supplier	sup	www.a
12	ASUS	C001471	500267297		<input type="checkbox"/>		Active Supplier	man	
13	AT&T INC.	C001474	301098061	43-1301883	<input type="checkbox"/>		Active Supplier	dis	www.a
14	Becton-Dickinson	C001475	153099629		<input type="checkbox"/>		Active Supplier	sup	
15	BERING	C001476	675631504		<input type="checkbox"/>		Active Supplier	man	http://v

## Running the query

To run the query, you can:

- Either click the **Run Query** button in the Query record
- Or click the corresponding the *Extract* icon     in the list of queries

If the query includes filters at runtime (**Par** function), a parameter input window will be displayed.

Run query ❏ ❏ ❏ ✕

Close | Extract | Extract PDF

Parameters


The input of filters is optional.

Click the **Extract** button to extract the results in the output format selected on the *Publish* tab of the query; or, click on **Extract PDF** button to generate a PDF output of extract results.

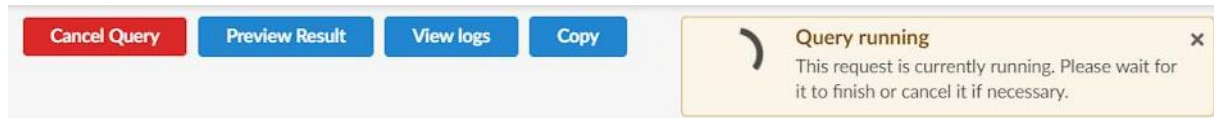
## CREATING AND MODIFYING QUERIES

### Preview and execution

From version 8.164, you can interrupt a running query by clicking the **Cancel Query** button displayed in place of the corresponding **Run Query** or **Extract** button.

**Note:** If running a query from the Browse Queries page (*Analytics > Browse Queries* menu), you can cancel the execution by clicking the corresponding  button in the *Extract Preview* column.

A tooltip informs you of the execution status:



Note that the same query cannot be launched more than once.

Depending on the situation, the following messages can be displayed in the tooltip:

- *Query running:* Normal operation. Wait for execution completion or, if needed, you can cancel the execution.
- *Query already running:* If you try to run a concurrent instance (e.g.: from another window), the application displays informs you that the same query is already being processed. Wait until the execution completes.
- *Too many queries are currently executing on this server for your login:* If you have reached the maximum per-user query parallel execution value, the application indicates you that no more queries can be launched (see *Query maximum parallel execution*, page 49). You can cancel the execution and wait for any running query to complete before trying again.




### Viewing the logs



To enable logging of query runtime data, select the *Create a log* checkbox on the *Publish* tab prior to running your query.



To access this information after having run the query, click the **View logs** button in the action bar.

Logs record the following times:


- SQL time (query run time)
- Rendering time (document construction)
- Total time (SQL + rendering)

Query logs   

  Close

Keywords   Search  Reset

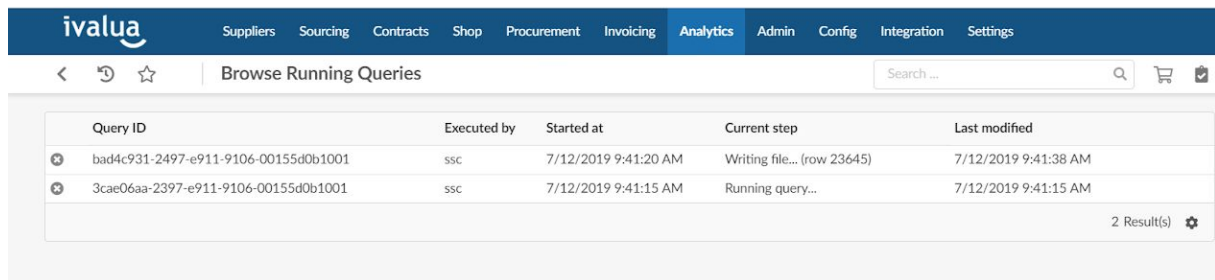
Log Date	Login	Output format for query	Output File Name	Successful Query	Error Message	ID	ID	SQL time	Total time
9/18/2020	epi	xlsx	query	Yes		517040e5-c77b-e711-80c8-00155d940c03	9ed69321-99f9-ea11-911e-00155d0b1001	0.23	0.43
9/18/2020	epi	xlsx	query	Yes		517040e5-c77b-e711-80c8-00155d940c03	9fd69321-99f9-ea11-911e-00155d0b1001	0.01	0.02
9/18/2020	epi	xlsx	query	Yes		517040e5-c77b-e711-80c8-00155d940c03	c11e9038-99f9-ea11-911e-00155d0b1001	0.02	0.04
9/18/2020	epi	xlsx	query	Yes		517040e5-c77b-e711-80c8-00155d940c03	d375ae3e-99f9-ea11-911e-00155d0b1001	0.00	0.01



4 Result(s) 


## Accessing and Managing Running Queries


You can review the running queries and stop them if needed (administrators can see all the queries that belong to any other user).

Select the *Analysis > Browse Running Queries* menu.



Query ID	Executed by	Started at	Current step	Last modified
 bad4c931-2497-e911-9106-00155d0b1001	ssc	7/12/2019 9:41:20 AM	Writing file... (row 23645)	7/12/2019 9:41:38 AM
 3cae06aa-2397-e911-9106-00155d0b1001	ssc	7/12/2019 9:41:15 AM	Running query...	7/12/2019 9:41:15 AM

2 Result(s) 

From this page, you can stop the execution of a given query by clicking the corresponding  icon next to the *Query ID*.




## **DISPLAYING THE RESULTS OF A QUERY**

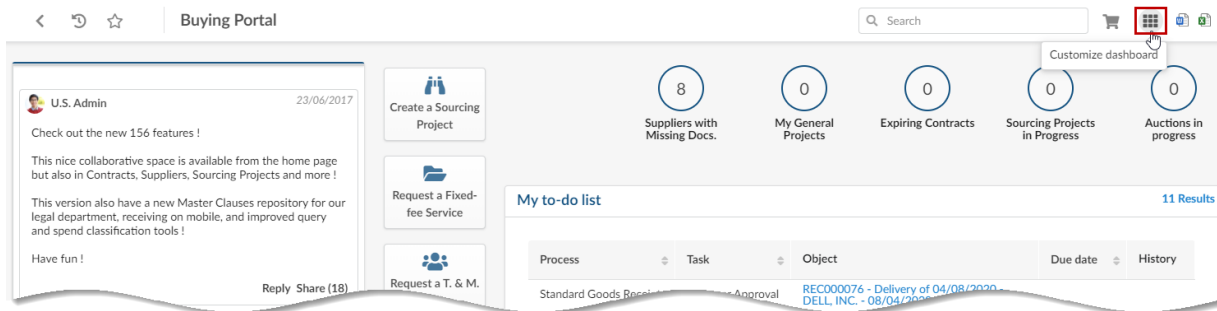
---



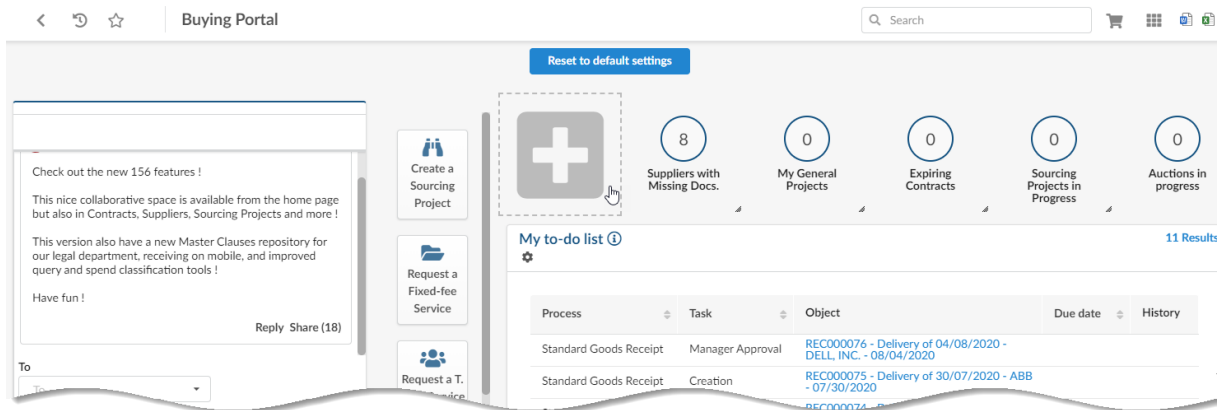
## Inserting a query on the home page (webpart)

### Accessing the Configuration of the content of a default home page

Display the Home page and click on the *Customize Dashboard*  icon located in the navigation header.




The homepage is now in customization mode:



In this mode, you can add new webparts by clicking the empty areas on the page. Locations that allow placing a webpart are indicated by a large “+” on mouseover (as shown above).

Existing webparts can be moved. Drag and drop the webparts to move them throughout the page grid.

Each webpart can be configured by clicking on the *Parameters* icon  below its title. The parameters open in a pop-up window. You can also delete the webpart from this window.

**Query preview (webpart)** ✕

Query : {0} :

querystring :

Webpart :

/que/query\_grid\_webpart (Query preview (webpart))

Mandatory webpart :

☐

Delete

Save

In customization mode, the following buttons are available in the action bar:

- *Reset to default settings*: deletes all custom webparts and resets the page to its default layout.
- *Set as global settings*: sets the page webparts and layout as the default for all users.

## DISPLAYING THE RESULTS OF A QUERY

### Inserting a query on the home page (webpart)

#### Adding content

To add a query webpart on the homepage, proceed as follows:

1. Click the **+** button (you may have to scroll down below existing webparts to see it).



2. The list of available webparts and content is displayed. Filter the list by selecting the *QUE – Queries* option in the *Module* search field in order to display Query-related webparts only.

List of content available

Close

Keywords

Q Search Reset

Module

QUE - Queries

Filters Module: QUE - Queries

Title	Description	URL	Label
<input type="checkbox"/> Browse Queries	List of queries	/que/query_browse	Queries
<input type="checkbox"/> Query preview (webpart)		/que/query_grid_webpart	Queries
<input checked="" type="checkbox"/> Queries	To display query results (through a click on the EXCEL icon)	/que/query_webpart	Queries

3 Result(s)

3. Select the checkbox that corresponds to the content you wish to include as a webpart on the homepage.

The first two content types below can insert Query reports as webparts on the homepage:

#### Queries

Insert a link to open the query result in a file

Queries ⓘ 3 Results

⚙

Extract

	Dashboard Contract: Signature Count
	Action plan / Savings
	Apqp Kickoff Checklist Data

**Query preview (webpart)** Directly displays the query results in the webpart

Query preview (webpart) ⓘ +150 Results

num_ctr	Code	Label	Delivery Date	Effective Delivery Date	Unit price	Commande	Libellé c
		Climatiseur 3 en 1 PC26- BMB Elami	5/14/2016		456.28	2	DA OFF BS-OFF BS
		Orange Open pro start	5/29/2016		66.00		

## Browse queries

Browse Queries ⓘ 107 Results

Code	Category	Label	Order	Type	Status	Private	Created by	Extract	Preview ⓘ
Accrual_Query		Accruals Report - NAR		sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_sav	Action plan / Savings	Action plan / Savings	1	sql	Approved	<input type="checkbox"/>	Admin Clarity		
std_qal_apqp_adhoc_activity_complete		Apqp Adhoc Activity Complete		sql	Approved	<input type="checkbox"/>	Admin Clarity		

## Selecting the query to be displayed in the webpart

Click on the icon of the webpart in order to access its parameters.

Query preview (webpart) ✕

Query : {0} :

Webpart : /que/query\_grid\_webpart (Query preview (webpart))

Mandatory webpart : ☐

querystring :

**Delete** **Save**

Open the *Query* field list and select the query you wish to display. You can access the full list by clicking *See all*. The list of available queries is displayed in a new window; select the query by selecting the corresponding checkbox.

Click the **Save** button to add the query as a webpart.

## Quitting the Configuration mode of the Home page

When you are satisfied with the choice and arrangement of the contents, click *Customize Dashboard* icon.

All the changes are saved and the pages goes back to normal operation mode.



# CONFIGURATION

---



## Table Management

The basic tables and columns that can be subject to queries are defined in the BAS – Table (t\_bas\_tab\_desc) and BAS – Column (t\_bas\_col\_desc) tables.

You can access these tables from the *Admin > Browse data* menu.

### BAS – Description of the tables of data model

Access the t\_bas\_tab\_desc table content (use the search fields for easier access).

**Is Main table:** determines which tables are available as a starting point in building a query, i.e. those that are selectable as the main query table.

To set a table as a main table to use in the query maker (and the Wizard), set the value of the *Is main table* field to Yes for the corresponding table.

**Allow query:** determines whether the table will be accessible in the query builder. Select this checkbox for the corresponding table.

Name	Functional Module	Description of the table EN (EN)	Table	Cleaning pre-query	Alias	Allow query	Is a main table
t_auc_auction	AUC - Auctions	Table containing the main data of the auction	Auction		auc	<input checked="" type="checkbox"/>	Yes
t_auc_auction_currency	AUC - Auctions		Auction		acur	<input checked="" type="checkbox"/>	
t_auc_auction_family	AUC - Auctions	Link Auction - Commodities	Auction		aucfam	<input checked="" type="checkbox"/>	
t_auc_auction_perimeter	AUC - Auctions	Link Auction - Organization	Auction		aucper	<input checked="" type="checkbox"/>	
t_auc_auction_status_history	AUC - Auctions				auction_status_history	<input checked="" type="checkbox"/>	
t_auc_auction_supplier	AUC - Auctions	List of suppliers solicited on an auction	Auction		asup	<input checked="" type="checkbox"/>	No
t_auc_auction_supplier_status_history	AUC - Auctions				auction_supplier_status...	<input checked="" type="checkbox"/>	

### BAS – Description of table columns

Access the t\_bas\_col\_desc table content (use the search fields for easier access).

**Authorize the queries:** determines whether the column will be accessible in the query maker.

## CONFIGURATION

### Managing query templates

Select this checkbox for the corresponding column in the list.

[<](#) [<](#) [<](#) Columns (tables) - t\_bas\_col\_desc [Search](#) [Shopping Cart](#) [Close](#)

Keywords

ModuleBAS - Base

TableBAS - Columns (tables) (t\_bas\_col\_desc)

[Search](#) [Reset](#)

Filters Module : BAS - Base Table : BAS - Columns (tables) (t\_bas\_col\_desc)

0 Selected

[Generate Script](#) [+ Insert New Line](#) [Create](#) [See Standard Data](#)

<input type="checkbox"/>	Column Name	Table name	Description (EN)	Label (EN)	Auditable	Authorize the queries	Alias	
<input type="checkbox"/>	auc_id	Auctions		ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	auc_is_test	Auctions		Is test auction	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	auc_label_de	Auctions		Label	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

## Managing query templates

### Principle

The results of a query can be formatted by applying a selected template on the *Publish* tab (*Content*).

The templates that are available to be selected are contents of the *Query template* type. They must be created prior to query creation in order to be usable in the query builder.

**Note:** You can filter the display by selecting the *Query Template* type in the *Type* search filter field. If this filter is used, clicking the *Create Document* button directly selects the query template type (bypasses the document type selection page).

[<](#) [<](#) [<](#) Browse Documents [Search](#) [Shopping Cart](#) [Close](#)

Keywords

Type[Template] Query template

Status

Contact

[Search](#) [Reset](#)

Filters Type : [Template] Query template

0 Selected

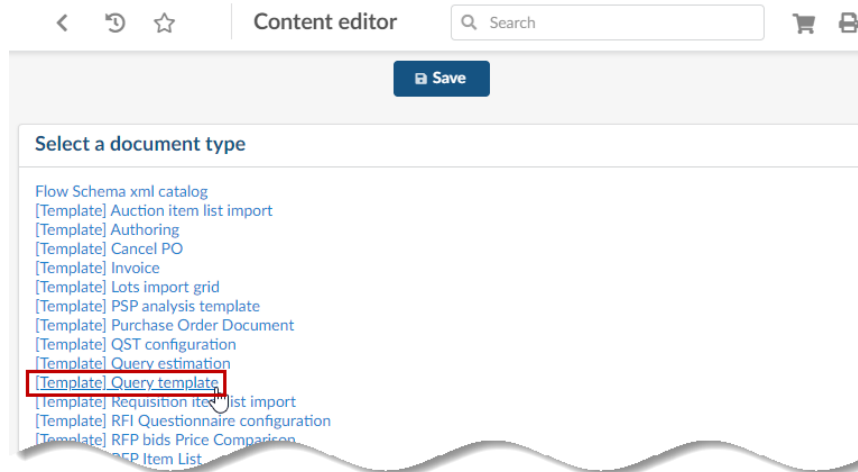
[Download Zip](#) [Create Document](#)

<input type="checkbox"/>	Documentation	Type	Contact	Last Modification	Creation Date	Validity End Date	Version
<input type="checkbox"/>	<a href="#">[Template] Work Assignment Document</a>	[Template] Query template (Approved)	<a href="#">Work_Assignment_template_fr.doc</a> <a href="#">Work_Assignment_template_en.doc</a>	HUREAU Sammy	3/23/2020 11:30:07 AM	3/23/2020 11:27:53 AM	
<input type="checkbox"/>	<a href="#">Template ABC fournisseur</a>	[Template] Query template (Approved)	<a href="#">Template ABC fournisseur-v1.xls</a>	ADMIN Clarity	6/1/2012 5:42:23 PM	6/1/2012 5:19:49 PM	

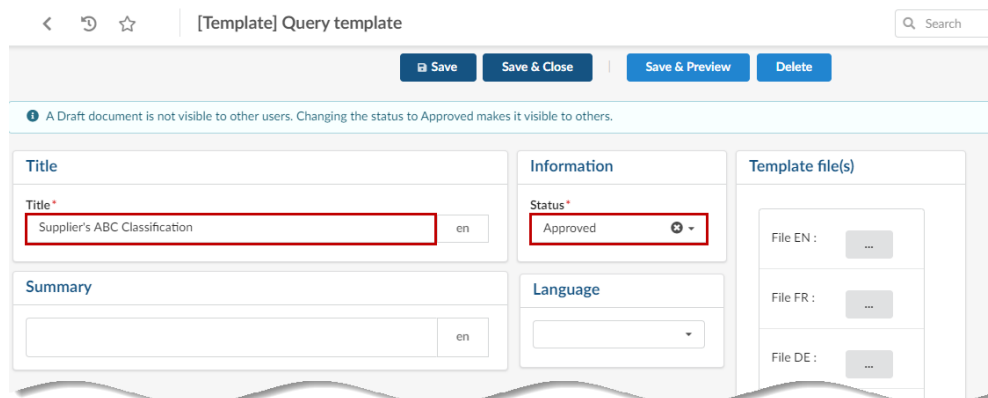
2 Result(s) [Settings](#)

## Creating/Modifying a *Query template* type of content

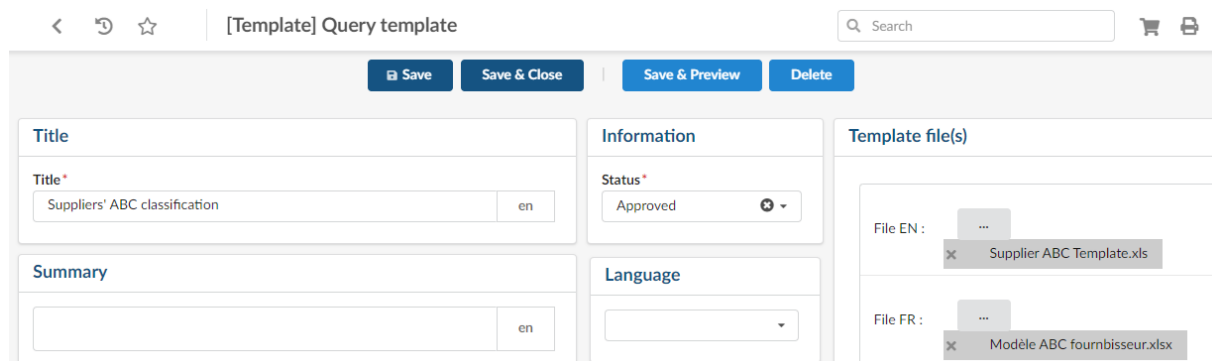
1. Access the *Admin > Browse Documents* menu.
2. Click on the **Create Document** button. The *Edit content* page will be displayed.
3. Select the *Query template* content type.



4. Specify the template title and select the *Approved* status.



5. Add the template file as an attachment. Click the **...** button linked to the file language in the *Template file(s)* area, select the template, then in the *Template* window, click the **Click or Drag to add file** link to select a template file from your computer. Alternatively, you can select an existing file from the *Template for Export* list.
6. Click the **Save** button.



## CONFIGURATION

### Managing query templates

#### Multilingual templates

By default, the query results are extracted in the language of the logged-in user (Output language: *user\_language*). You can override the extraction language used by the template by selecting a different one from the *Language* dropdown list.

The template title can be translated in the other languages supported by the application. Click the language indicator in the *Title* field to open the translation tooltip. The content of the *Summary* field can also be translated by using the tooltip.

The screenshot shows the 'Query template' configuration interface. At the top, there are navigation icons (back, refresh, star) and the title '[Template] Query template'. Below this are four buttons: 'Save', 'Save & Close', 'Save & Preview', and 'Delete'. The main area is divided into two columns. The left column has a 'Title' section with a text input field containing 'Suppliers' ABC classification' and a language dropdown menu currently set to 'en'. A tooltip is open below the dropdown, showing translation options for 'Title' in French ('Classement ABC fournisseurs'), Deutsch ('de'), Italiano ('it'), Polski ('pl'), Español ('es'), and Português. The right column has an 'Information' section with a 'Status' dropdown set to 'Approved' and a 'Language' dropdown set to 'English'.

When a document template is used, it is possible to manage a multilingual extraction by attaching the file in each language you want to support.

The screenshot shows the 'Query template' configuration interface with the 'Template file(s)' section highlighted. The interface is similar to the previous one, but the 'Summary' field is now visible. The 'Template file(s)' section is on the right, showing two rows: 'File EN : Supplier ABC Template.xls' and 'File FR : Modèle ABC fournisseur.xls'. Each row has a file icon and a close button. The 'Title' field is still 'Suppliers' ABC classification' and the 'Status' is 'Approved'.

## Query maximum parallel execution

From version 8.164, query execution can be limited in order to avoid server overload and long-running queries.

This can be particularly useful if a given query needs to process large amounts of data, and that may therefore seem to be unresponsive. It prevents users from launching multiple instances of the same query repeatedly. The application also allows to cancel the execution of already running queries.

This configuration also reduces the risk of having poorly written or invalid queries (e.g.: unoptimized queries or code that leads the query processing engine to hang for long).

Query execution limitation prevents processing and memory overload by enforcing a fixed limit set by the administrator.

The defined value is the maximum number of queries that can run in parallel:

- Globally. The maximum total number of queries that can run in parallel on the server.
- Per-user. This limit defines the maximum number of queries individual users can run simultaneously.

Access the *Settings > Parameters* menu, then, use the *Keywords* field to search for the *query\_max\_parallel\_exec* parameters for the *QUE – Queries* Functional Module.

Global parameters

Keywords: query\_max\_parallel\_exec Type: Functional Module: QUE - Queries Search Reset

Filters Keywords: query\_max\_parallel\_exec Functional Module: QUE - Queries

Create Save

Code	Functional Module	Label	Value	Default value	Source Type	Param	Value
query_max_parallel_exec	QUE - Queries	Maximum parallel query execution on the server	0		Integer	Script	Script
query_max_parallel_exec_user	QUE - Queries	Maximum parallel query execution by user	0		Integer	Script	Script

2 Result(s)

The two following parameters are available:

- *query\_max\_parallel\_exec*: Global limit. Allows to define the maximum total number of parallel query executions on the server (regardless of per-user limits).
- *query\_max\_parallel\_exec\_user*: allows to define the maximum per-user parallel query execution.

Specify a positive integer value for each field in the *Value* column.

A value of 0 (zero) means that there is no enforced limit.

Click the **Save** button to apply the changes.